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Mr. Benjamin H. Layno,
Primary examiner
Art unit 3711

Dear Mr. Layno,
Thank you for the complete analysis of my Mathematical Problem solving game submission.
Your points related to the card display rejections are accepted and I have replaced the card display feature with a "Game control box" to eliminate the playing card function this required considerable text change (Removed text bracketed) and added text bold and underlined the game features remain identical and just the means of displaying the random numbers have changed.
Unfortunately my original submission did not fully portray the uniqueness of the mathematical game, clarification has been added to the submission that required descriptive changes without any change of substance and claims,
I have studied the prior art cited in your rejection, but other than the playing card feature I only see no violations related to this present submission. The fixed format rules that I have invented consider to be totally unique, I am proposing the market name of "Triple Solution" perhaps my poor submission did indicate a connection to prior art, but after reading this submission I feel confident that you will agree that I have not infringed on prior art and in particular not the prior art of Mr. Moore or Mr. Gulag. This is a totally unique fun game, I just hope that my submission illustrates that.

Yours truly.
Anthony Lloyd
p.s. it has been a busy weekend

H. LAY[illegible]
ART UNIT [illegible]

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Patent changes indicated by adding —underlined and bold
Removing indicated by brackets.

Mathematical problem solving game

Abstract of the disclosure

In accordance with the present invention, a mathematical problem solving game, has a [illegible] of cards, each card having an upper face providing a display of mathematical questions, [illegible] above the other and coded to indicate their required skill level. each) [illegible] will randomly display [illegible] number and [illegible] used to form two questions [illegible] a third question with a [illegible] equal to the (underlined) displayed solution number. (of the displayed question). A simple example: calculation numbers 2, 4, 1, 3 Solution number =2. to create a correct answer- form [illegible] 1=1 4-3=1 use the two answers to form [illegible] equal to the [illegible] =2. to initiate the game the game control [illegible] (second) [illegible] for players to review the four calculation [illegible] one solution number. players [illegible] by being the first to declare a (required) correct answer or the first to correctly declare [illegible] Possible, and lose points by calling an incorrect answer or incorrectly calling "No [illegible]".

FIELD OF THE INVENTION

The present invention relates to a [illegible] (multi) skill level mathematical problem [illegible] and more particularly to a game that has unlimited players competing to be the first to solve a [illegible] format mathematical question, rules of the game provide means of scoring points and strategies for maximizing the points earned. A specialized (deck of cards has questions displayed on each specialized playing card face, each of the said questions being identified to) game box indicates (the) [illegible] levels (required to) that can be used to formulate the correct answer. This [illegible] skill level [illegible] a capability for players of a variety of skill levels to (compete) play the game. (While the [illegible]

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invention relates to a deck of cards, it also envisages such a game that is adaptable to game by the random number selection devices and computers.)

BACKGROUND OF THE INVENTION

We are repeatedly reminded of how computers are detracting from the mathematical skill levels of society as a whole and children in particular, thus there is a need for an amusing and entertaining card game (which) that also enhances mathematical skills.

With respect to educational (card) games, up to the present time, players have been limited to games that have not been structured to increase mathematical skills (a specialized card deck.) In general, educational (card) games are limited to following types:

1. Memory retention games. These are limited to developing the memory

2. Games that reward for identifying word meanings. This is excellent for language enhancement but fails to enhance mathematical skills.

3. Games that involve the use of numbers on the cards to make a decision related to the game used to play. These are excellent for addition or subtraction but are limited in true mathematical skill development.

4. Games that require mathematical calculations with the use of standard playing cards, however they lack the structure and competitiveness of using the specialized mathematical playing cards and the rules of the present invention.

Educational card games are well known in the prior art, of particular reference to the present invention are as follows: U.S. Pat. 2003/0234493 of Friedman Shlomo Ravana issued Dec 25th 2003. Specifically designed to teach young children an alphabet or other basic skills.

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ART [illegible]

U.S. Pat. 20030168809 Richardson Jeff September 11 2003 provides a game that uses pieces similar to the well known domino game for requirement to add and subtract numbers while not [illegible] mathematical skills.

SUMMARY OF THE INVENTION

It is the object of the present invention to provide a mathematical problem solving game that is fun to play. It is a further the object of the present invention to provide such a game, providing a plurality of skill levels wherein means for competing with the (mixed) skill levels of children and adults exist.

In accordance with the present invention a mathematical problem solving game is provided of the type comprising of a specialized Game Control [illegible] the function of [illegible] four random calculation numbers from a selection of numbered discs stored in the [illegible] achieved by shaking an enclosed game control box containing a plurality of numbered [illegible]. The shaking of the game control box [illegible] and displays four random calculation [illegible] the function of displaying a single [illegible] number is achieved by [illegible] surface with a dial pointer that [illegible] position on a dial face. The inner numbers of the sections [illegible] for low skill [illegible] numbers, the outer numbers for higher skill levels. (deck of cards, each card face displaying [illegible] skill level of unique mathematical questions, each of the said questions are coded to denote the specific skill level (required to solve the mathematical question, Thus the ability for players to select questions within their skill limits has been provided, the said questions are coded to denote the specific skill level (required to solve the mathematical question),

It is a further accordance of the present invention to provide an enjoyable and competitive mathematical game,

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The said mathematical game is started by a player placing the game control box to [illegible] display of four calculation numbers and spinning a dial to display a single solution number (a single card being placed face up), and then placing the game control box face up in a location that [illegible] displays the aforementioned mathematical questions to all game players, (an unlimited number) each of whom can earn points by being the first player to solve the question (identified by a pre-determined skill level code.) using a pre-established fixed format.

(Players may sit on both sides of the dealer to obtain optimum orientation related to the display.)

Each mathematical question is in a fixed format of four calculation numbers on discs and one (underlined) solution number displayed by a pointer, whereby the four calculation numbers can be divided into two (sums) questions incorporating each of the four calculated numbers just once, having answers, that can be combined to form a third (sum) solution comprising an answer that equals the solution number of the displayed mathematical question.

Addition, subtraction, division and multiplication may be required to generate said correct solution.

(To increase fun) Enjoyment and competition is increased by a percentage of questions not having a possible solution a (valid) declaration of "No solution possible" can be made by a player with the result that remaining players will be time limited to find a correct solution.

Players will be awarded points for the following:

1. The first player to declare "Solved it." and provide a correct solution 2. For correctly declaring "No solution possible" 3. For correctly calling "Solved it" after a "No solution possible" has been declared. (Should a player declare "Solved it." then fail to provide a correct answer, remaining players will be awarded a point.) A timing device (may be) is used to limit the time available to provide a solution (find an answer.) Thus the requirement for a competitive and fun game has been met.

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H. [illegible]

BRIEF DESCRIPTION OF THE DRAWINGS (Obsolete)

(Figure 1 Depicts the upper face of a specialized playing card within the scope of the present invention whereby a (variety of unique mathematical questions are displayed (together with indicia that denotes the skill level reqttisite) to form a correct answer for each unique mathematical question. (Figure 2 Depicts the upper face of a specialized playing card within the scope of the present invention whereby a variety of unique mathematical questions are displayed together with a code that denotes the skill level required to formulate a correct answer for each unique mathematical question.)

Fig. 2 Illustrates a face view of the selected playing card indicating a solution number 2 that indicates no solution possible.

A sample solution has been temporarily added in italics below each displayed mathematical question to enhance the patents clarity of explanation of the required fixed mathematical question solving format.)

DRAWINGS AND DETAILED DESCRIPTION TOTALLY AMENDED TO ELIMINATE REJECTED USE OF PLAYING CARDS

Fig.1 Is a front perspective view of an enclosed game controlbox structure with timer shown raised, dial face and stored discs not shown for clarity.

Fig. 1a Is an end view illustrating the control box window display compartment and a [illegible] controls the entry of numbered discs into the game control box window display compartment.

Fig. 1b Isolates a single control box mounted disc.

Fig.2 depicts a control box face displaying a mathematical problem that has no solution.

Fig.3 Illustrates the Timer raised ready to be inserted.

Fig 3a illustrates the timer in a storage position.

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Amended DETAILED DESCRIPTION OF THE INVENTION

A mathematical problem solving and learning system to solve multiple mathematical problems using a fixed format that requires calculations to form two questions whereby the answers to the above mentioned two questions are combined into a third question having an answer equaling the correct solution as displayed.

With respect to Fig. 1 An enclosed game control box (1) having a plurality of numbered discs (2) to initiate such mathematical problem solving system, a plastic clear plastic game control box (1) having said numbered discs (2) to enter the game control box (1) display window (3) by pressing by the number thereof (4) located at the base of a numbered disc (2) storage compartment (5) thus four numbered discs (2) are randomly selected and displayed in the game control box (1) window display compartment (3).

With respect to Fig. 2 For the function of selecting a solution number (6) located on the front of the game control box (2) is a dial face (7) placed and rotated to spin the dial face (7) numbers (8) to select a solution number (9) for lower skill levels the inner dial face (7) number (9) will be selected than the solution number (6) for higher skill levels the outer dial face number (10) selected.

Illustrated are a selection of four calculation numbers 7,3,5,9 and a solution number 26. A correct answer to this problem is, "solution is not possible".

Fig. 2a Illustrates the solution of the above mathematical problem in the manner in which required by mathematical problem solving game rules of using each of the four calculation numbers once, to create two questions, their two answers that are then formed into a third question having a correct answer that equals the solution number 20.

Fig. 3 Illustrates a sand timer (11) and the use of inverting the sand timer (11) in order to determine the conclusion of a fixed time period. The sand timer (11) is then ready for use a second (12) time.

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compromised during gamecontrol [illegible] to cause the timer (10) to [illegible] across when a scoring slide (13) [illegible] above the sand timer. (10)

ORIGINAL TEXT PRIOR TO AMENDMENT

(With respect to Figure 1. (Specialised playing cards each display within the scope of the present invention, unique mathematical questions consisting of four calculation numbers (2) and one underlined solution number (4) with skill levels required to solve the unique mathematical questions (2) complete solution (5)(6), being numerically identified as a skill level (7)(8)(9)(10))).

With respect to Figure 1.

With respect to Fig. 2 The function of selecting a solution number Players are required to solve the unique mathematical questions (2) by creating two sums (5) each of the two sums (5) to consist of two numbers in a manner that utilises each of the four calculation numbers (3) a single time, with the object that the resulting answers to the two sums (5) can be formed into a third two number sum (6) whereby the answer to the third two number sum (6) equals the underlined solution number (4)

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The level of skill required to solve the unique mathematical question increase when progressing as the skill level numbers increase. Skill level 1 (7) unique mathematical questions (2) are of a high [illegible] nature.)

Per example illustrated, both the solution number and the calculation numbers are randomly [illegible] when by the the dealer shaking the (1) game control box Fig 2 (skill level 1), Calculation numbers (2) 6,5,12 ,3, solution number 10 displayed for correct answer formulation, two sums are created from the calculation numbers 6-5=1 12-3=9 having answers that form a question 1+9= 10 having an answer equal to the solution number 10. [illegible] the and the calculation numbers remained the same and the

calculation number changed to [illegible] fixed format question would be 6,5,12,3=6 and the fixed format solution 6x5=30 12x3=36 36-30=6

(((3+ 1=4 (5)) the two) answers of the two questions (sums) (5) are then used to create a third question (sum) 9+1=10 initiate the game. [illegible] question (2) answer being 4+2=6(5) 3+1%(5) 6-4=[illegible])

Per example illustrated in skill level 2, (8) Calculation numbers (3) 6,3,8,4 Solution number (4) = 6- The complete unique mathematical question (2) answer being 6/3=2(5) 8-4=4 (5) 2+4=[illegible])

Per example illustrated in skill level 3 (9) Calculation numbers (3) 3,4,7,2. Solution number (4) the complete unique mathematical question (2) answer being 3x2=6(5) 7-4=3 (5) 6+3=9 .(6)

Skill level 4 (10) Calculation numbers (3) 1 3,6, 1 4,2 Solution number (4) 2.4 The complete mathematical question (2) answer being 13+14=27 (5) 6/2=3 (5) 27-3=24 (6a)))

A player, upon solving the [illegible] mathematical question (2) will first declare [illegible] then declare the unique mathematical question (2) complete solution (3)(5) In the event of a plurality of correct answers being possible, all correct answers will be acceptable.

The embodiments of the invention in which an exclusive property or privilege is claimed are as follows:

Mathematical Problem Solving Game with a fixed format problem-solving solution, consisting of the calculation numbers displayed by the game wheel forming 3 questions to produce a final answer equal to the solution number displayed the same defined as follows:

1. A mathematical problem solving game, comprising a [illegible] numbered discs and a pointer [illegible] a solution number for the purpose of formulating a fixed format mathematical problem equation comprising the forming of [illegible] format questions, 3,

of a solution with a fixed format solution involving three (three)

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2. A Mathematical Problem Solving Game of claim 1 wherein the awarding of a scoring point is subject to the following rules: a rule that permits players to preselect the level of difficulty, as indicated by a dial number (coding) located on the game control box (specialized card) of claim 1

a rule that multiplication, division, subtraction and addition may be required in the solving of the displayed (unique) mathematical question.

a rule that requires that (a single card from the deck of specialized cards of claim 1 be placed in open view of an unlimited number of) players initiate the start of the mathematical problem solving game of claim 1 by shaking the game control box of claim 1 to randomly select 5 numbers consisting of 4 calculation numbers and 1 solution number displayed in a specific format,

a rule that a fixed format of four calculation numbers be used, resulting in finding two simple questions having answers that can be formed into one final number question having an answer equal to the (and one) solution number displayed (as a unique mathematical question on a specialized card from the deck of specialized cards of claim 1 to create two sums, each of the said two sums to consist of two numbers in a manner that utilizes each of the four calculation numbers one single time, with the object being that the resulting answers to the said two sums being such that they can be formed into a third sum to provide the correct solution to the unique mathematical question displayed, whereby the said third sum answer, equals the solution number provided in the associated unique mathematical question.)

(a rule that establishes that questions displayed on a specialized card from the specialized deck of cards of claim 1, be of an identified variety of skill levels.)

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a rule permitting a questions displayed on the screen representing (specialized words) of clues to not have a solution, for purpose of enabling a first to declare "No possible solution"

a rule that appropriately rewards with points the first player to either, identify a solution, correctly identify "no possible solution" or identify a solution after "no solution has been declared".

(a rule that awards double points to a player that identifies a solution after a "no possible solution" has been declared by another competing player.)

(a rule that if a player fails to dispute a proposed solution following a declaration of "no solution" the remaining players are awarded points.)

a rule permitting a timing device to limit the time available to solve a unique mathematical question